LES1208A-R2
LES1216A-R2
LES1232A
LES1248A-R2

8-/16-/32-/48-Port Advanced Console Servers QS Guide

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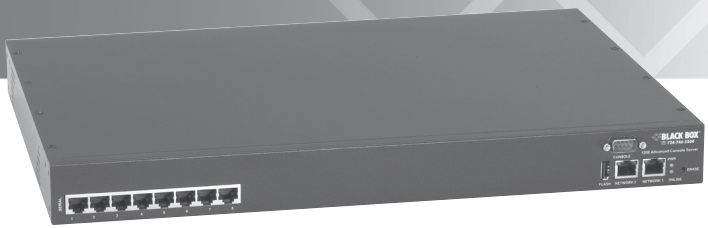

Customer Support Information

Order toll-free in the U.S.: Call 877-877-BBOX (outside U.S. call 724-746-5500) • FREE technical support 24 hours a day, 7 days a week: Call 724-746-5500 or fax 724-746-0746 • Mailing address: Black Box Corporation, 1000 Park Drive, Lawrence, PA 15055-1018 • Web site: www.blackbox.com • E-mail: info@blackbox.com

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QS1. Introduction

This Quick Start Guide walks you through installation, configuration, and local operation or your LES1208A-R2, LES1216A-R2, LES1232A, and LES1248A-R2 8-/16-/32-/48-Port Advanced Console Servers. For more details, please refer to the user's manual on the CD-ROM.

QS2. What's Included

Your package should contain the following items. if anything is missing or damaged, contact Black Box at 724-746-5500.

- Console Server
- (2) UTP cables
- (1) DB9F-RJ45S straight cable
- (1) DB9F-RJ45S crossover cable
- (1) Power cable
- Printed Quick Start Guide
- User's manual and SDT connector tool software on CD-ROM

QS3. Connect the Hardware

1. Plug the Advanced Console Server into the AC power. The Advanced Console Server has dual universal AC power supplies with automatic failover built in.
2. Connect the NETWORK1 port on the console server to your network. Connect your serial devices to the SERIAL PORTS 1-8/16/48.

NOTE: If you plan to use out-of-band (OoB) dial-in access, connect the internal modem to the phone line. If you plan to use broadband OoB, connect the access device (such as DSL modem) to NETWORK2.

QS4. Set Up the Advanced Console Server

The default console server IP Address is 192.168.0.1 (subnet mask 255.255.255.0). Using a Web browser on any computer that is LAN connected to the Console Server:

1. Enter https://192.168.0.1 into the address bar.
2. Log in using the default system user name root and the default password. A Welcome screen listing the basic configuration steps is displayed.
3. Select "System: Administration," enter and confirm a new System Password and click "Apply."

NOTE: The computer connected to the LAN must have an IP address in the same network range (192.168.0.xxx) as the Advanced Console Server. Alternately, you can use the ARP ping command to set the IP address (refer to the user's manual). The embedded DHCP client is enabled by default, so it will automatically accept any network IP address assigned by any DHCP server on your network—and will then respond at both 192.168.0.1 and its DHCP address.

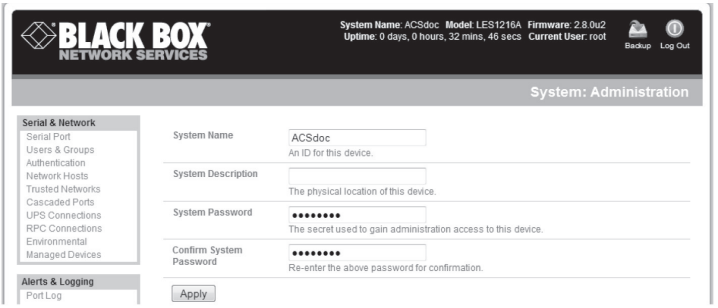

Figure QS-1. System Administration screen.

4. To assign your Console Server a static IP address or to permanently enable DHCP, select "System: IP" and check "DHCP or Static for Configuration Method."

The Advanced Console Server also has a second Ethernet network port (Network 2) that you can configure as a management gateway/LAN port (with firewall/router isolation and DHCP server) or as a failover/OoB access port. By default, this port is inactive.

To activate broadband failover/OoB, refer to the user's manual, otherwise leave Failover Interface at its default selection, None.

To use Network 2 as the management LAN gateway:

1. Select "System: IP" then "Network 2" and uncheck "Disable."

2. Enter the IP Address and Subnet Mask for this segment of the Management LAN (leaving Gateway and DNS fields blank). Refer to the user's manual if you want to enable the DHCP server.

NOTE: By default, only HTTPS and SSH access is enabled to the Advanced Console Server itself. Use the Service Access menu on "System: Firewall" to change this, and to change access privileges for connected serial and network devices. Similarly, use the "Forwarding & Networking" menu to permit remote IP access to devices on Network of Management LAN.

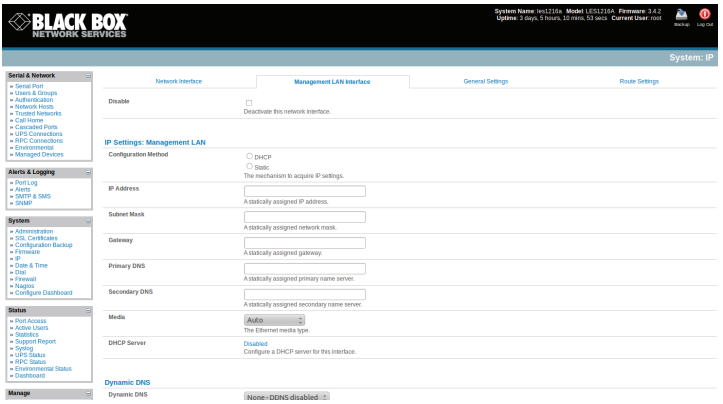

Figure QS-2. Management LAN interface screen.

QS5. Configure Serial and Network Devices

1. Select "Serial & Network: Serial Port" to display the labels, modes, and protocol options currently set for each serial port—by default all serial ports are set in Console Server mode (refer the user's manual if other modes are required).

2. To configure a serial port, click "Edit." Configure the Common Settings (Baud Rate, Parity, Data Bits, Stop Bits, and Flow Control) to match those of the device being controlled.

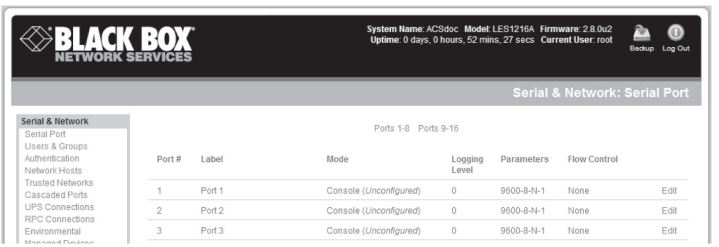
BLACK BOX
NETWORK SERVICES
System Name: ACSdoc Model: LES1216A Firmware: 2.8.0u2
Uptime: 0 days, 0 hours, 52 mins, 27 secs Current User: root
Backup
Log Out
Serial & Network: Serial Port
Serial & Network
Serial Port
Users & Groups
Authentication
Network Hosts
Trusted Networks
Cascaded Ports
UPS Connections
RPC Connections
Environmental
Ports 1-8 Ports 9-16
Port # Label Mode Logging Level Parameters Flow Control
1 Port 1 Console (Unconfigured) 0 9600-8-N-1 None Edit
2 Port 2 Console (Unconfigured) 0 9600-8-N-1 None Edit
3 Port 3 Console (Unconfigured) 0 9600-8-N-1 None Edit

Figure QS-3. Serial and Network: Serial Port.

3. Select the console server protocols (Telnet, SSH, TCP, and RFC2217) that are to be used for the data connection to that port.

4. You may also set a Logging Level to specify the level of information to be logged and monitored for that port. Click "Apply."

5. To access locally networked computers (referred to as Hosts) through the console servers, select "Serial & Network: Network Hosts" and click "Add Host."

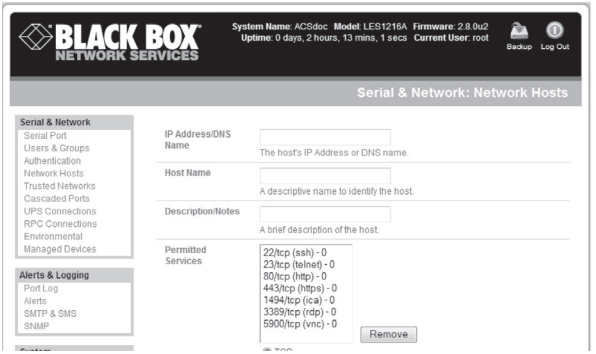

Figure QS-4. Serial and Network: Network Hosts screen.

6. Enter the IP address/DNS Name of the host.

7. Edit the Permitted Services used for accessing this host, for example, HTTPS (TCP Port 443), VNC (TCP Port 5990), or add custom TCP or UDP port numbers. Only the services specified here are tunneled to the host, all other services are blocked.

8. At this stage, you may also specify the level of information to be logged and monitored for each host access.

9. Click "Apply."

10. The Advanced Console Server has one USB 1.1 port (on the front panel) and two USB 2.0 ports on the back panel. Attached USB devices are auto-configured.

- The console server has an internal 16 GB flash drive for log file storage. However, the USB 1.1 port can be used with an external USB flash for loading updated firmware or config files.

- The USB 2.0 ports can also be used for connecting to USB console ports on UPS supplies or attaching cellular USB modems.

QS6. Add New Users

NOTE: We recommend that you set up a new Administrator user (in the admin group with full access privileges) and log in as this new user for all ongoing administration functions (instead of continuing as root).

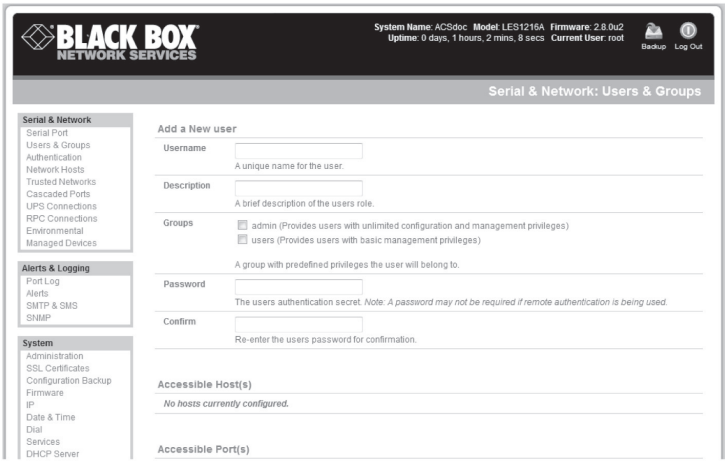

Figure QS-5. Serial and Network: Users and Groups screen.

1. For each new user, select "Serial & Network: Users & Groups" and click "Add User."

2. Enter a Username and enter and confirm a Password, and name the Accessible Hosts and Accessible Ports the user is allowed to access.

3. Click "Apply."

NOTE: The Console Server comes with a default certificate for initial configuration only. When you first browse to the Console Server, you will receive a message that the certificate is "untrusted." Initially, you'll need to direct your browser to (temporarily) proceed and accept this untrusted certificate.

We recommend that you generate and install a new trusted certificate as soon as possible thereafter. To produce the unique CSR and later upload the newly issued certificate, select "System: SSL Certificates."

QS7. Advanced Configurations

The Advanced Console Server offers many more advanced functions including:

- The Alerts & Logging: Alerts facility that monitors serial ports, hosts, user logins, UPSs and PDUs. You can specify a broad selection of trigger events (such as data patterns, temperature, or battery levels). When triggered, a warning e-mail, SMS, Nagios®, or SNMP alert is sent to a nominated destination.

- Extensive management of third-party UPSs and PDUs using open source NUT and Powerman tools. The Manage: Power facility enables both administrators and regular users to monitor and control attached PDU power strips, and servers with embedded IPMI BMCs.

- Historical logs of all communications with serial and network attached devices, system activity, UPS and PDU power status, environmental status, etc. The level of logging is set as ports and devices are configured. Alerts & Logging: Port Log enables this history to be saved locally or remotely. Logs can be viewed from the Status and Manage menus.

- Other advanced features, such as Dashboard, Serial Port Cascading, remote Authentication, Trusted Networks, Secure Tunneling, Nagios Distributed Monitoring, and the Command Line interface are covered in detail in the User's Manual on the CD-ROM.

NOTE: On the CD-ROM, you will also find the SDT Connector software tool. Once you have configured the console server, this tool provides you with secure, point-and-click access to it and all its attached managed devices. Refer to the provided SDT Connector Quick Start Guide for details on setting up remote management of the console server and connected devices.

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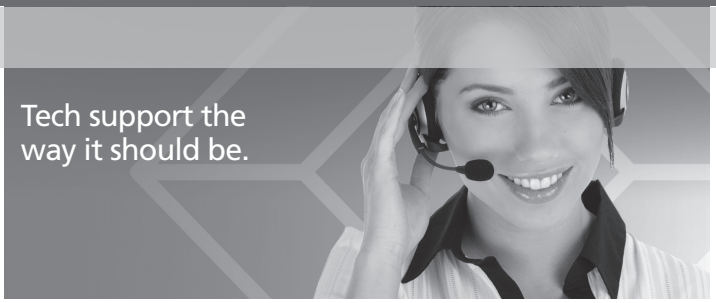

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